REMARKS

The amendments presented in this Reply address the comments made by the Examiner in the Advisory Action mailed May 25, 2007. Claims 10 and 11 have been canceled without prejudice. Claims 1 and 23 have been amended to correct typographical errors. Claims 14-17 have been amended. No new issues have been raised or new matter introduced with this amendment. Claims 1-8, 12, 14-19, 21-26 and 28-31 are pending.

Independent claims 1, 12, 21, 22, 23, and 24 generally relate to methods, keyboards, and terminals in which at least two variables are associated with each individual key, in which variables and/or key positions can change after a predetermined period of time or different attempts to input a secure access code, which can be used with any number of different user interfaces. The features of applicants' discovery are designed to thwart fraud by preventing: (i) eavesdroppers from identifying the digits of the user's access code when watching the keyboard sufficiently closely as to view the displayed characters; (ii) eavesdroppers from repeating the sequence of keys inputted by the user when watching the keyboard sufficiently closely as to view such displayed sequence; (iii) other methods of fraudulent detection described in the application. See, e.g, page 3 line 8 through page 5 line 27.

1. Claims 10 and 11 were objected to as being in improper dependent form. Claims 10 and 11 have been canceled to moot the objection.

2. Claim 24 was objected to for repeating claim language. The two phrases in Claim 24 do not repeat. The first recitation states "the combination of variables comprising at least two variables." The second recitation states "wherein the combination of variables comprising at least two variables, and different combinations of variables are assigned to different virtual keys after a predetermined time has elapsed, or after a predetermined number of attempts to access a

secured terminal." The two recitations are not repeated. In the Advisory Action, the Examiner notes that "the second occurrence is interpreted as redundant". However, the second occurrence is part of a "wherein" clause, which indicates that "the combination of variables comprising at least two variables, and different combinations of variables are assigned to different virtual keys after a predetermined time has elapsed, or after a predetermined number of attempts to access a secured terminal" which describes more than the first recitation that indictated that "the combination of variables comprising at least two variables." Applicants respectfully request reconsideration and withdrawal of this objection.

3. Claims 1-8, 10-12, 14-19, 22-24, and 28-31 were rejected under 35 U.S.C. § 103(a) over Maddalozzo, Jr. et al. U.S. Patent 6,434,702 and Morgan et al. U.S. Patent 5,274,370. Maddalozo discloses a virtual keypad with only one character associated to each individual key, wherein characters are scrambled after each use. Maddalozzo does not disclose a method including associating different combinations of variables with different keys for different attempts to input the secure access code, as recited in applicant's claim 1. Maddalozzo also does not disclose a virtual keyboard in which different combinations of variables are associated with different virtual keys for different attempts to input an access code, as recited in applicant's claim 12. Nor does Maddalozzo disclose a virtual keyboard including a graphical user interface for displaying the plurality of virtual keys in different arrangements and different positions for different attempts at inputting information by a user, as recited in applicant's claim 21. Maddalozzo also does not disclose a method including associating two or more variables with each of the plurality of virtual keys, different combinations of variables are associated with different virtual keys for different attempts to input the secure code, as recited in applicant's claim 22, or a secure access terminal including a plurality of virtual keys in which different

combinations of variables are associated with different virtual keys for different attempts to access secured electronic information, as recited in applicants' claim 23. Maddalozzo also does not disclose a method including creating a virtual keyboard in which the combination of variables comprising at least two variables, and different combinations of variables are assigned to different virtual keys after a predetermined time has elapsed, or after a predetermined number of attempts to access a secured terminal, as recited in applicant's claim 24.

Morgan does not disclose what Maddalozzo lacks. Morgan discloses a keypad with two variables associated to each individual key wherein the order of the keys is shuffled after each utilization, but not the pair of values associated to it. For example, at col. 8, lines 43-45, Morgan specified that the order of the keys is shuffled, but not a pair of values associated to it. Morgan does not disclose a method including associating different combinations of variables to each individual key for different attempts to input the secure access code, as recited in applicant's claim 1. Morgan also does not disclose a virtual keyboard in which different combinations of variables are associated with different virtual keys for different attempts to input an access code, as recited in applicant's claim 12. Nor does Morgan disclose a virtual keyboard including a graphical user interface for displaying the plurality of virtual keys in different arrangements and different positions for different attempts at inputting information by a user, as recited in applicant's claim 21. Morgan also does not disclose a method including associating two or more variables with each of the plurality of virtual keys, different combinations of variables are associated with different virtual keys for different attempts to input the secure code, as recited in applicant's claim 22, or a secure access terminal including a plurality of virtual keys in which different combinations of variables are associated with different virtual keys for different attempts to access secured electronic information, as recited in applicant's claim 23. Morgan

also does not disclose a method including creating a virtual keyboard in which the combination of variables comprising at least two variables, and different combinations of variables are assigned to different virtual keys after a predetermined time has elapsed, or after a predetermined number of attempts to access a secured terminal, as recited in applicant's claim 24. Indeed, nothing in Morgan teaches or suggests these features of the independent claims recited above.

Thus, neither Maddalozzo nor Morgan teaches or suggests every element of applicant's claimed invention. Nor do Maddalozzo or Morgan contain any motivation for one of ordinary skill in the art to combine Maddalozzo and Morgan to render applicant's claims 1, 12, 22-24, or their dependent claims obvious. For these reasons, applicant respectfully requests reconsideration and withdrawal of this rejection.

4. Claim 21 was rejected under 35 U.S.C. § 103(a) over Jalili U.S. Patent 6,209,104 and Morgan. Jalili discloses a data entry method in which icons are displayed in various positions on a screen, and the icons are associated with data. A user selects an icon, and the system determines the data selected based on the position of the icon on the screen. Jalili does not disclose a virtual keyboard including a graphical user interface for displaying the plurality of virtual keys in different arrangements and different positions for different attempts at inputting information by a user, as recited in applicant's claim 21. As described above, Morgan does not disclose what Jalili lacks. Thus, Jalili and Morgan combined do not teach or suggest every element of applicant's claim 21; nor do Jalili or Morgan contain any motivation to one of ordinary skill in the art to combine Jalili and Morgan to render applicant's claim 21 obvious. Applicant respectfully requests reconsideration and withdrawal of this rejection.

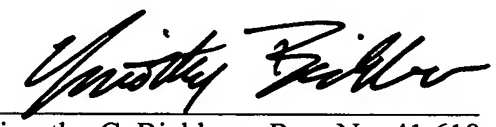
5. Claims 25 and 26 were rejected under 35 U.S.C. § 103(a) over Maddalozzo, Morgan, and Chasko et al. U.S. Patent 6,715,078. For the reasons stated above, Maddalozzo and Morgan

do not recite every element of applicant's claim 24, from which claims 25 and 26 depend. Chasko does not disclose what Maddalozzo and Morgan lack. Chasko discloses a system for securely encrypting data, such as PIN information. Chasko does not disclose a method including creating a virtual keyboard in which the combination of variables comprising at least two variables, and different combinations of variables are assigned to different virtual keys after a predetermined time has elapsed, or after a predetermined number of attempts to access a secured terminal, as recited in applicant's claim 24. Thus, Maddalozzo, Morgan and Chasko combined do not disclosed every element of applicant's claim 24. Nor is there any teaching in Maddalozzo, Morgan, or Chasko that would motivate one of ordinary skill in the art to combine the references to render applicant's claim 24 obvious. For these reasons, applicant respectfully requests reconsideration and withdrawal of this rejection.

For the foregoing reasons, all claims 1-8, 12, 14-19, 21-26 and 28-31 are now in condition for allowance, which is respectfully requested.

The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293. If further amendments would place this application in even better condition for issue, the Examiner is invited to call applicant's undersigned attorney at the number listed below.

Respectfully submitted,



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Timothy C. Bickham, Reg. No. 41,618

STEPTOE & JOHNSON LLP
1330 Connecticut Ave., N.W.
Washington, D.C. 20036
Telephone: (202) 429-3000
Facsimile: (202) 429-3902